

W. L. POOLE.
 AUTOMATIC SAFETY APPLIANCE FOR RAILWAY CARS.
 APPLICATION FILED SEPT. 8, 1911.

1,026,766.

Patented May 21, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

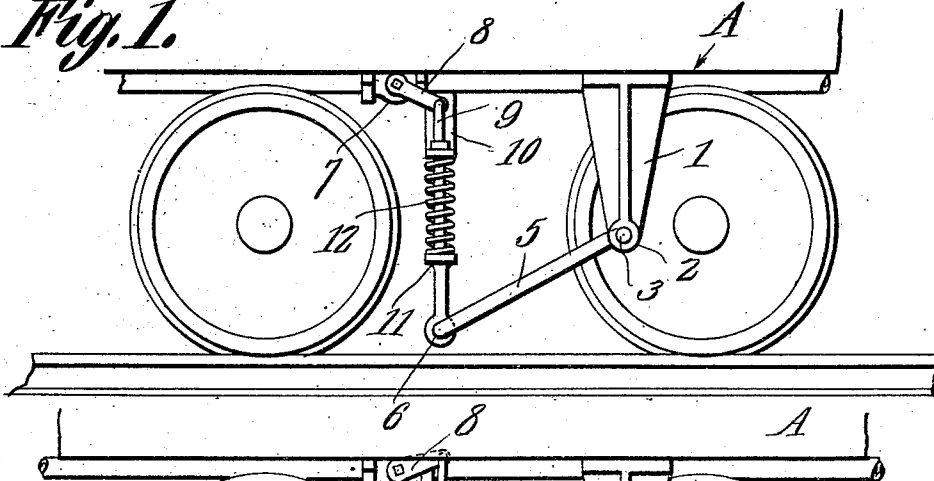


Fig. 2.

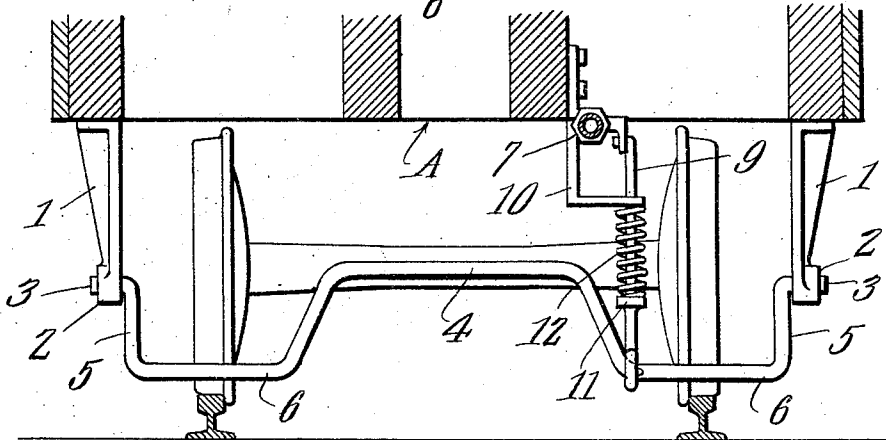
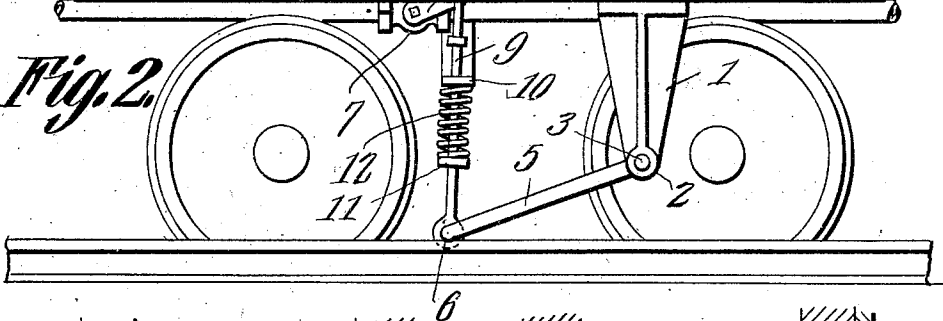


Fig. 3.

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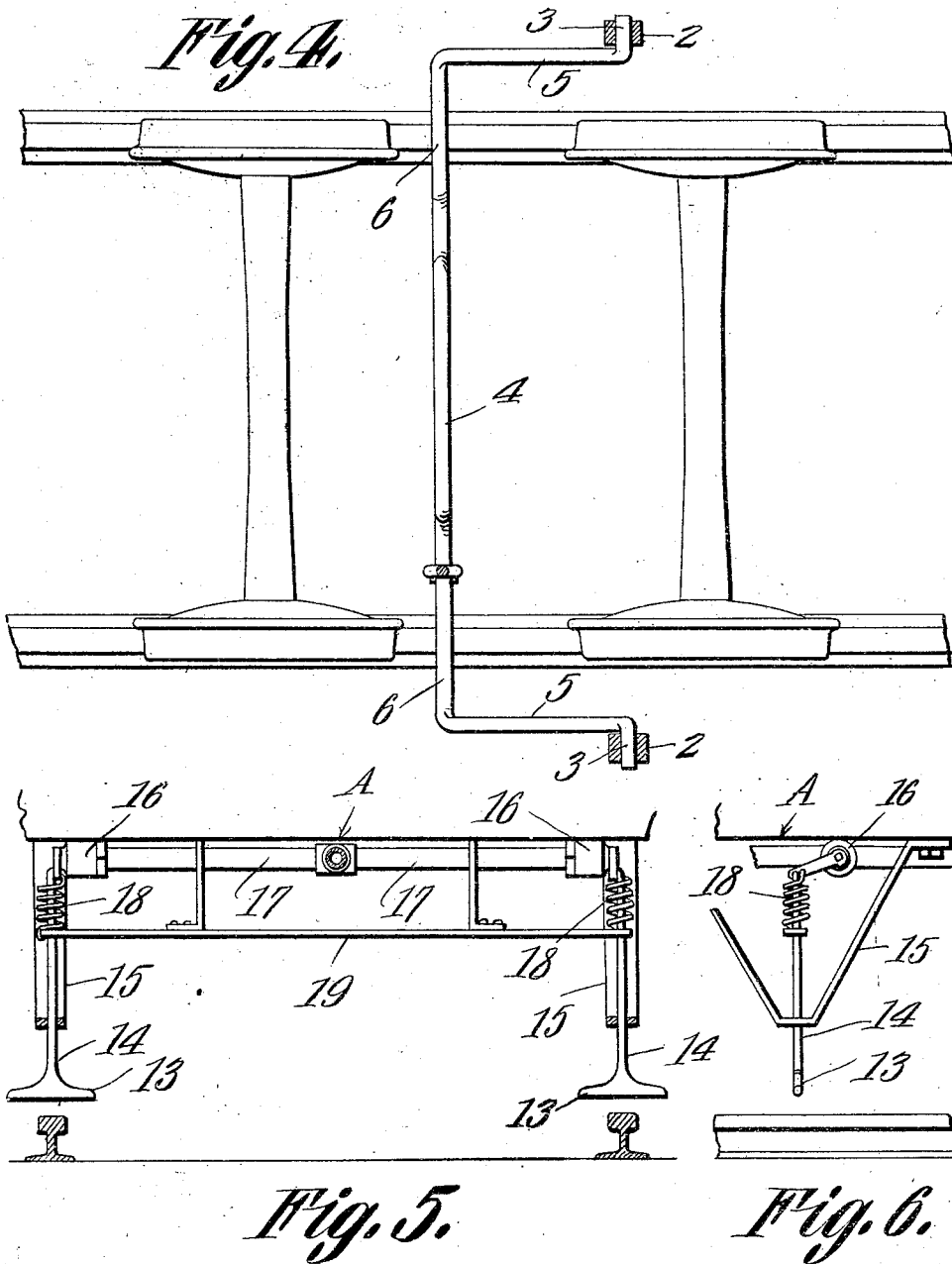
INVENTOR
 By Walter L. Poole,
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UNITED STATES PATENT OFFICE.

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AUTOMATIC SAFETY APPLIANCE FOR RAILWAY-CARS.

1,026,766.

Specification of Letters Patent.

Patented May 21, 1912.

Application filed September 8, 1911. Serial No. 648,340.

To all whom it may concern:

Be it known that I, WALTER L. POOLE, a citizen of the United States, residing at Covington, in the county of Alleghany and State of Virginia, have invented certain new and useful Improvements in Automatic Safety Appliances for Railway-Cars, of which the following is a specification.

This invention relates to automatic safety appliances for railway cars and the like, and has for its object to provide a device which will operate to release the pressure in the train line pipe to set the brakes in case of derailment of any car in the train.

Another object is to provide means for preventing the device being operated other than by actual derailment of the truck.

It is also designed to provide a simple and inexpensive device which may be readily applied to existing rolling stock of all kinds now in universal use.

With these and other objects in view, the present invention consists in the combination and arrangement of the several parts which will be hereinafter more fully described, shown in the accompanying drawings and pointed out in the appended claims, it being understood that changes in the form, position, size and arrangement of the several parts described may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

Reference being had to the accompanying drawings forming a part of this specification, Figure 1 is a view in side elevation of a portion of a car with the invention applied thereto; Fig. 2 is a similar view with the parts in the position assumed upon derailment of the truck; Fig. 3 is a transverse sectional view of the same; Fig. 4 is a plan view of the device, parts being in section; Fig. 5 is a transverse sectional view of a slightly modified form, and Fig. 6 is an elevation of the same.

Similar characters of reference designate corresponding parts in all the figures of the drawings.

Secured to the floor frame of a car indicated A, and projecting downwardly at either side of the car are hangers or brackets 1, the lower end of each terminating in a bearing 2, for the reception of a trunnion 3 formed on the end of a transversely extend-

ing bar 4, said bar being extended downwardly and obliquely to a point above and adjacent the rail, to form a lever 5, it is then bent at right angles to form tappet or contact portions 6, and is then bowed upwardly in the center to avoid obstructions that might be encountered between the rails.

A release valve 7 is connected to the train line pipe at the proper place above the bar 4, and is normally closed to the atmosphere, so that it does not affect the train line pressure until operated to open to the atmosphere as will presently appear.

Pivotally connected to the lever 8 for operating the valve 7 is a rod 9, the lower end of which is pivotally connected to one of the tappet portions 6 of the bar 4. A bracket 10 is fixed to the floor frame A of the car, and the rod 9 is slidably mounted in this bracket, said rod having fixed thereon a collar 11, and a helical tension spring 12 encircles the rod and is interposed between the bracket 10 and the collar 11, it being intended that said spring shall exert sufficient pressure downwardly on the bar 4 to prevent the same being operated other than by the derailment of the car. Should the wheels of a truck leave the rails as shown in Fig. 2, the tappet will engage the rail, and through the rod 9 operate on the valve 7 to open same to the atmosphere and thus apply the brakes in the manner well known, the weight of the car being such as to cause the spring 12 to be further compressed. When the car is restored upon the rails, the excess compression of the spring 12 occasioned by the derailment of the car is released, and the spring automatically returns the valve to normal position.

In Figs. 5 and 6 is shown a modified form in which the tappets indicated 13 are arranged over each rail, a rod 14 being slidably mounted in a guide 15, and is connected at its upper end to the operating lever of a release valve 16 located in a branch pipe 17 from the train line pipe. A helical tension spring encircles the rod 14 and has one end fast to the valve lever and its other end secured to a fixed support 19 depending from the car frame, this spring will therefore prevent the valve being operated except by the weight of the car when derailed.

Having fully described the invention,

what is claimed as new and desired to secure by Letters Patent, is;

1. In a device of the character described comprising brackets supported by a car, 5 a bar journaled in said brackets, a plurality of tappets carried by said bar and adapted to contact with the rail when the car is derailed, a release valve connected with the 10 train line pipe of an air brake system, means for operably connecting the valve with the tappets, and means for returning the valve to normal position after derailment.

2. In a device of the character described comprising a bracket supported by a car, 15 a push rod slidably mounted in said bracket, a tappet carried by said push rod, a release valve operably connected with the train line pipe of an air brake system, the push rod adapted to be actuated by the derailment of 20 said car, and flexible means for preventing actuation of said valve other than by derailment of said car.

3. In a device of the character described comprising a bracket supported by a car, 25 a push rod slidably mounted in said bracket, a tappet carried by said push rod, a release

valve operably connected with the train line pipe of an air brake system, the said push rod adapted to be actuated by the derailment of the car, flexible means for preventing 30 actuation of said valve other than by derailment of the car, and means for returning said valve to normal position after derailment.

4. In a device of the character described, 35 comprising a plurality of brackets supported by a car, push rods slidably mounted in said brackets, tappets carried by said push rods, a release valve operably connected with the train line pipe of an air 40 brake system, the said push rods adapted to be actuated by the derailment of the car, flexible means for preventing actuation of said valve, other than by derailment of the car, and means for returning said valve to 45 normal position after derailment.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER L. POOLE.

Witnesses:

ANNIE ARMITT,
M. D. MILLER.